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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,236	12/29/2003	Martin Hudis	00009-120003	8842

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EXAMINER	
THOMAS, ERIC W	

ART UNIT	PAPER NUMBER
2831	

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,236	HUDIS, MARTIN	
	Examiner	Art Unit	
	Eric W Thomas	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,15 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,15 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Introduction:

The examiner acknowledges, as recommended in M.P.E.P. 707.04, the applicant's submission of the amendment dated 12/29/03. At this point, claims 1, and 8-9 have been amended; and claims 10-14 have been cancelled. Thus, claims 1-9, and 15-16 are pending in the instant application.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Applicant uses "comprises" in the abstract.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-9, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans (US 5,754,394) in view of Evans (US 5,982,609).

Evans discloses a capacitor comprising an electrochemical cathode (abstract) having a current collector coated with a finely divided material (col. 6 lines 29-36); an electrolytic anode (abstract) comprising aluminum coated with aluminum oxide (col. 5 lines 24-26 and col. 7 lines 60-65), an electrolyte in contact with the finely divided material on the cathode and the aluminum oxide on the anode (col. 5 lines 39-59).

Evans discloses the claimed invention except for the current collector is formed from an aluminum material. Evans discloses in col. 7 lines 20-30, that the material used for the current collector is not limited. Evans does not expressly state the coating is a material other than an aluminum oxide resulting from exposure of the aluminum to air.

Evans (5982609) teaches the use of a cathode aluminum current collector used in a pseudo-capacitor type cathode / wet slug-type anode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the current collector of Evans from an aluminum material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

The modified Evans (the capacitor having an aluminum cathode) inherently would not have an aluminum oxide formed on the cathode (see the process of forming the coating on the cathode).

Regarding claim 2, Evans discloses the electrolyte is substantially non-aqueous (col. 5 lines 39-59).

Regarding claim 3, Evans discloses the claimed invention. Evans does not expressly state that the electrochemical cathode functions by the presence of a double layer at an interface between the finely divided material and the substantially non-aqueous electrolyte. The electrochemical cathode inherently functions by the presence of a double layer at an interface between the finely divided material and the substantially non-aqueous electrolyte (see materials).

Regarding claim 4, Evans discloses the finely divided material, comprises carbon particles (see col. 5 lines 12-13).

Regarding claim 5, Evans discloses the claimed invention except for the carbon particles is at least one of a carbon powder, carbon fibers, and graphite. The examiner takes Official Notice that graphite is a well-known material used in the formation of capacitors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a graphite in the capacitor of Evans, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 6, Evans discloses the claimed invention. Evans does not expressly state that the electrochemical cathode functions by the presence of an oxidation/reduction reaction within the finely divided material. The electrochemical cathode inherently functions by the presence of an oxidation/reduction reaction within the finely divided material (see materials).

Regarding claim 7, Evans discloses the finely divided material comprises a metal oxide coating (col. 6 lines 29-41).

Regarding claims 8-9, Evans discloses the claimed invention except for the metal oxide coating is ruthenium oxide (a hydrous amorphous ruthenium oxide powder). Evans discloses that the material used in the coating is not limited (see col. 4 line 67, col. 5 lines 1-5). The examiner takes Official Notice that a hydrous amorphous ruthenium oxide is a well-known material used in the formation of electrolytic capacitors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a hydrous amorphous ruthenium oxide in the capacitor of Evans, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 15, Evans discloses the claimed invention except for the substantially non-aqueous electrolyte comprises an ethylene glycol solvent. Evans discloses the solvent of the electrolyte is a glycol solvent (col. 5 lines 40-60). Ethylene glycol is a well-known "glycol" solvent use in electrolytes for electrolytic capacitors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an ethylene glycol solvent in the capacitor of Evans, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Doubl Pat nting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

cs 5/14/04

2. Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 15,16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of U.S. Patent No. 6,208,502 in view of Evans (US 5,982,609).

Regarding claim 1, claim 4 of '502 recites a capacitor comprising an electrochemical cathode comprising a metal (current collector) coated with a finely divided material, an electrolytic anode comprising an oxide forming metal and a corresponding metal oxide a substantially non-aqueous liquids electrolyte in contact with the finely-divided material and the metal oxide.

'502 does not recite the electrochemical cathode current collector formed from aluminum, the anode is formed from aluminum, and the anode has an aluminum oxide formed thereon.

The examiner takes Official Notice that it is well known in the capacitor art to form a) an anode from an aluminum material; and b) an aluminum oxide coating on an anode. It would have been obvious to one having ordinary skill in

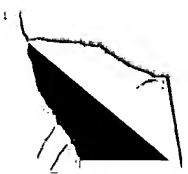
the art at the time the invention was made to form a) an anode from an aluminum material; and b) an aluminum oxide coating on an anode of '502, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Evans (5982609) teaches the use of a cathode aluminum current collector used in a pseudo-capacitor type cathode / wet slug-type anode. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the current collector of '502 from an aluminum material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

The modified '502, inherently would not have an aluminum oxide formed on the cathode.

Regarding claim 2, claim 4 of '502 recites the electrolyte is non-aqueous.

Regarding claim 3-5, claim 4 of '502 recites the claimed invention except for the electrochemical cathode functions by forming a double layer of charge at the interface between the finely divided material and the substantially non-aqueous electrolyte; wherein the finely divided material comprises carbon powder. The examiner takes Official Notice that carbon powder is a well-known material used in the formation of capacitors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a carbon powder in the capacitor of '502, since it has been held to be within the general



skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 6-9, claim 4 of '502 recites the claimed invention except for the electrochemical cathode functions by the presence of an oxidation/reduction reaction within the finely divided material; wherein the finely divided material comprises a hydrous amorphous ruthenium oxide. The examiner takes Official Notice that hydrous amorphous ruthenium oxide is a well-known material used in the formation of capacitors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a hydrous amorphous ruthenium oxide in the capacitor of '502, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 15, claim 4 of '502 recites the claimed invention except for the substantially non-aqueous electrolyte comprises an ethylene glycol solvent. The examiner takes Official Notice that ethylene glycol is a well-known solvent use in electrolytes for electrolytic capacitors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use an ethylene glycol solvent in the capacitor of '502, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Regarding claim 16, claim 4 of '502 recites the anode has a larger surface area than the cathode.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric W Thomas whose telephone number is (571) 272-1985. The examiner can normally be reached on M, T, Sa 9:00AM - 9:30PM; W, Th, F 5:30PM-10:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-1984. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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